

HOUSTON POLICE OFFICERS' PENSION SYSTEM
ACTUARIAL VALUATION REPORT
FOR THE YEAR BEGINNING JULY 1, 2008

June 11, 2009

Board of Trustees
Houston Police Officers' Pension System
602 Sawyer
Suite 300
Houston, TX 77007

Dear Members of the Board:

Subject: Actuarial Valuation as of July 1, 2008

We are pleased to present our Report of the actuarial valuation of the Houston Police Officers' Pension System ("HPOPS" or "the System") for the plan year commencing July 1, 2008. This report describes the current actuarial condition of HPOPS, determines the calculated employer contribution rate (the actuarially required rate), and analyzes changes in this contribution rate. Valuations are prepared annually, as of July 1, the first day of the HPOPS plan year.

Financing objectives and funding policy

Under the HPOPS statute, the employer contribution rate is determined actuarially, based on the Board's funding policy and HPOPS' governing law. The contribution rate determined by a given actuarial valuation and implemented by the Board becomes effective twelve months after the valuation date, i.e., the rates determined by this July 1, 2008 actuarial valuation will be used by the Board when determining the employer contribution rate for the year beginning July 1, 2009 and ending June 30, 2010.

Under the 2004 Meet & Confer Agreement between the Board and the City of Houston, a funding schedule was implemented resulting in a minimum \$53 million employer contribution for the fiscal year ending June 30, 2006, increasing by \$5 million each year thereafter until HPOPS' funded ratio reaches 100%. In addition, beginning in fiscal year 2013, the city contribution will increase by an additional \$5 million per year (\$10 million in total) if the contribution levels are still less than the actuarially determined rate. Once the System reaches a 100% funded ratio, the City will pay the actuarially required rate, but not less than 16.00% of payroll.

Given the above schedule, the employer contribution amount for the fiscal year ending June 30, 2010 is not set by this actuarial valuation as of July 1, 2008. Therefore, the actuarially calculated contribution rate from this valuation will not be contributed. Instead, City contributions of \$68 million for FY 2009 and \$73 million for FY 2010 are to be made under the terms of the above funding schedule.

The amortization period is set by statute, and was modified under the Meet and Confer. The contribution rate and liabilities are computed using the Entry Age Normal (EAN) actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The normal cost rate is determined as a percent of pay. The employer normal cost is the difference between this and the weighted member contribution rate. The amortization rate is determined as a level percent of pay. It is the amount required to amortize the unfunded actuarial accrued liability (UAAL) over an open period (30 years as of July 1, 2008).

Progress toward realization of financing objectives

The funded ratio (the ratio of the actuarial value of assets to the actuarial accrued liability) is a standard measure of a plan's funded status. In the absence of benefit improvements, it should increase over time, until it reaches 100%. The funded ratio as of July 1, 2008 is 81.83%. In the 2007 valuation the funded ratio was 77.89%.

The calculated employer contribution rate for FY 2010 is 30.91%. This rate is less than the 32.10% rate calculated in the 2007 valuation, mostly due to recognition of the deferred investment gains from FY 2005, 2006, and 2007. Please see Table 6 under Section III of our Report for a detailed analysis of the change in the calculated employer contribution rate from the prior year to this year.

It should be noted that the above information is based on the measurement of the System as of June 30, 2008. As the Board of Trustees well knows, the investment markets have suffered tremendous losses since this date. If this actuarial valuation had been performed at the end of October instead of the end of June, the results would have been dramatically different. The actuarial gains discussed above would have been completely eliminated by the additional investment losses that have occurred since the valuation date of June 30th.

In the absence of a significant recovery in the investment markets during the next few years, the contribution rate needed to amortize the UAAL over 30 years will increase because of these markets losses.

It should be noted that other than the City of Houston's agreement to maintain a funded status floor as specified under the 2004 Meet & Confer, the City funding schedule could potentially not be sufficient to cover all future benefit payments of HPOPS. Moreover, it is possible that the System will fall below the funded status floor as actual experience differs from what is assumed and/or assumptions change.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2008. There were no changes in the benefit provisions since the prior valuation.

The benefit provisions are summarized in Appendix B of our Report.

Assumptions and methods

Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the plan's actuary. The current assumptions used in the valuation were adopted by the Board based on the recommendations from the prior actuary, Towers Perrin.

The results of the actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in our Report are intended to provide information for rational decision making.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in Governmental Accounting Standards Board (GASB) Statement Number 25.

All assumptions and methods are described in Appendix A of our Report.

Data

Member data for retired, active and inactive members was supplied as of July 1, 2008 by the HPOPS staff. We did not audit this data, but we did apply a number of tests to the data, and we concluded that it was reasonable and consistent with the prior year's data.

Asset and financial information as of July 1, 2008 was supplied to us by the HPOPS staff.

Plan Experience

As part of each valuation, we examine the System's experience relative to the assumptions. The aggregate results of these analyses are disclosed in Tables 5 & 6 under Section III of our Report. This past fiscal year the System had a total liability loss of approximately \$7.54 million.

Actuarial Certification

All of the tables contained in this actuarial valuation report and in the actuarial section of the HPOPS Comprehensive Annual Financial Report (CAFR) were prepared by Gabriel, Roeder, Smith & Company. Historical information for years prior to 2008 was prepared by the prior actuarial firm and was not subjected to our actuarial review. We certify that the information presented herein is accurate and fairly portrays the actuarial position of HPOPS as of July 1, 2008.

All of our work conforms with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. Both are Enrolled Actuaries and Members of the American Academy of Actuaries, and both meet the Qualification Standards of the American Academy of Actuaries. Finally, both of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



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SECTION I

EXECUTIVE SUMMARY

Executive Summary (dollar amounts are in millions)

Item	July 1, 2008	July 1, 2007
Membership <ul style="list-style-type: none"> • Number of: <ul style="list-style-type: none"> - Active members - Retirees and beneficiaries - Inactive members - Total • Annualized Payroll supplied by HPOPS 	 	
Calculated Contribution rates <ul style="list-style-type: none"> • Employer • Member¹ 	 	
Assets <ul style="list-style-type: none"> • Market value • Actuarial value • Estimation of return on market value • Estimation of return on actuarial value • Employer contribution • Member contribution • Ratio of actuarial value to market value 	 	
Actuarial Information <ul style="list-style-type: none"> • Employer normal cost % • Unfunded actuarial accrued liability (UAAL) • Amortization rate • Funding period • GASB funded ratio 	 	
Projected employer contribution based on calculated rate <ul style="list-style-type: none"> • Fiscal year ending June 30, • Projected payroll (millions) • Projected employer contribution (millions) <p>(actual contribution rate set by Meet & Confer)</p>	 	

¹ Employee contribution rate is 9.00%. Members hired after October 9, 2004 contribute 10.25% of pay.

SECTION II
DISCUSSION

Contribution Requirements

- The above Executive Summary shows the calculated contribution rate for FY 2010 to be 30.91% of payroll
- Rates shown on the Executive Summary are calculated rates for the twelve-month period beginning July 1, 2009, based on current board policy
- Table 6 under Section III of our Report reconciles the calculated contribution rate from the prior valuation date to the current valuation date
 - The most significant factor in the decrease in the rate was the recognition of the deferred investment gains from Fiscal Years 2005, 2006, & 2007
- There were no changes to the benefit provisions reflected in this actuarial valuation
- There were no changes to the actuarial assumptions
- The amortization payment is based upon the following assumptions:
 - 30-year open funding period beginning July 1, 2008
 - Dollar contribution amounts increase as a level percentage of payroll
 - Total payroll increases 3.50% per year
 - No future growth in the number of active members is taken into account
- The System's funded ratio increased from the prior year and the actuarially determined contribution rate decreased from the prior year primarily due to the gain on the actuarial value of assets (12.47% return versus the assumed rate of return of 8.50% per annum)
 - Analysis of the change in contribution rates is shown in Table 6 under Section III of our Report
- Post valuation date investment losses
 - As stated previously in our cover letter, the recent turmoil in the investment markets have caused more investment losses for the System which have not been recognized in this actuarial valuation as of July 1, 2008. In the absence of a significant recovery in the investment markets, the unfunded actuarial accrued liability (UAAL) and GASB Annual Required Contribution will likely increase significantly over the next five valuations.
 - Based on the recent performance in the investment markets since July 1, 2008, there is a potential that the current funding policy will not be sufficient to sustain all of the future benefit payments expected to be paid under HPOPS.

Calculation of Contribution Rates

The funds available to pay benefits come from two sources, contributions and investment income on those contributions (the majority of the funds available to pay benefits typically come from investment income). HPOPS receives contributions from two sources, employer contributions which are currently based on a fixed schedule and member contributions which are determined as a percentage of pay. As shown in Table 2 under Section III of our Report, the employer contribution rate has two components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)

The NC% is the theoretical amount which would be required to pay the members' benefits if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. The NC% is shown in Table 4 under Section III of our Report.

Members are required to make employee contributions and only the excess of the NC% over the member contribution rate is included in the employer contribution rate.

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current participants of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. The Meet & Confer Agreement has specified that this amortization should be over a period of 30 years beginning July 1, 2008. Item 11a of Table 2 in Section III of our Report shows the UAAL%.

The calculated rate is used in determining the contributions necessary to meet the GASB ARC for the twelve-month period beginning July 1, 2009. Note, however, that under the terms of the Meet and Confer Agreement the FY 2010 contribution is already set at \$73 million.

Financial Data and Experience

As of July 1, 2008, HPOPS has a total market value of about \$3.33 billion. Financial information was gathered from the HPOPS staff.

Our Report includes a number of Exhibits related to plan assets. Table 8 under Section III of our Report shows how the total market value is distributed among the various classes of investments. Currently, 39.6% of invested assets are held in equities, compared with 43.7% last year and compared with a 40.5% investment policy target. 27.8% of invested assets are held in fixed income securities, compared with 26.2% last year and compared with a 31% investment policy target.

Table 9 under Section III of our Report shows a reconciliation of the market values between the beginning and end of FY2008.

During FY2008, the dollar-weighted total investment return on the market value of assets (MVA) was 0.24%, as shown in Table 12 under Section III of our Report. The Comprehensive Annual Financial Report (CAFR) states the time-weighted return for FY2008 was 0.3%.

In determining the contribution rates and funded status of the System, an actuarial value of assets (AVA) is used, rather than the market value of assets. The method used to compute the AVA takes the difference between actual earnings and expected earnings (based on the annual assumed 8.50% investment return rate) each year, and recognizes the difference over five years, at 20% per year. This “smoothing method” is intended to help reduce the volatility of the contribution rates from year to year.

The development of the AVA is shown in Table 10 and Table 11 under Section III of our Report. The AVA is \$3.34 billion. The AVA is 100.3% of the MVA, compared to 89.4% last year.

In addition to the market return, Table 12 also shows the return on the actuarial value of assets for HPOPS. For FY2008, this return was 12.47%. Because this is greater than the assumed 8.5% investment return, an actuarial gain occurred decreasing the unfunded actuarial accrued liabilities of the System by \$118.46 million. Table 14 shows a historical summary of market and actuarial return rates in recent years.

Member Data

Member data as of July 1, 2008 was supplied electronically by the HPOPS staff. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Table 20 under Section III of our Report shows the number of members by category (active, inactive, retired, etc.). Tables 21a-d show active member statistics by Group. Tables 18 and 19 show summaries of certain historical data, including membership statistics.

The number of active and DROP members increased from 4,879 to 5,065 as of June 30, 2008, a 3.81% increase.

The total payroll shown on the statistical tables is the amount that was supplied by HPOPS, annualized, if necessary. For the cost calculations, the pay amounts were adjusted in accordance with the actuarial assumptions to reflect one year's salary increase.

Total active member payroll increased 4.61% last year, compared with a 2.74% increase the prior year.

This uptrend in payroll is significant because the methodology used in the valuation to amortize the unfunded actuarial accrued liability assumes a growing payroll into the future. If the payroll does not grow at the assumed 3.50% per year average, then the current amortization payments may be understated and the funding position of the System will not strengthen over time.

Benefit Provisions

Appendix B of our Report includes a summary of the benefit provisions for HPOPS.

- *Normal Retirement Eligibility*
 - Sworn Prior to October 9, 2004 – 20 years of service
 - Sworn on or after October 9, 2004 – Age 55 with 10 years of service
- *Normal Retirement Benefit*
 - Sworn Prior to October 9, 2004 – 2.75% of average direct pay for the first 20 years of service and 2% for each year after 20
 - Sworn on or after October 9, 2004 – 2.25% for the first 20 years of service and 2% for each year after 20 up to a maximum of 80%
- *Normal Form of Payment* is a 100% Joint & Survivor Annuity for married retirees and Life Annuity for unmarried retirees
- *Employee Contributions* are required
 - Sworn Prior to October 9, 2004 – 9.00% of pay.
 - Sworn on or after October 9, 2004 – 10.25% of pay
- *Post-retirement Cost of Living Adjustments (COLA)* are granted each year on April 1 and is calculated at 80% of the change in the CPI (Consumer Price Index) for the previous calendar year. However, the COLA can never be less than 2.4% or greater than 8.0%. This COLA is applied to retirement, survivor and DROP benefits, and is included in the benefit payment made at the end of April.
- *Insurance Benefit* - Retired members and surviving spouses are entitled to receive an additional stipend of \$150.00 per month to help offset the cost of medical insurance premiums

This valuation reflects all benefits offered to HPOPS members. There are no ancillary benefits that might be deemed a HPOPS liability if continued beyond the availability of funding by the current funding source.

Actuarial Methods and Assumptions

Appendix A of our Report includes a summary of the actuarial assumptions and methods used in this valuation. Costs are determined using the Entry Age Normal actuarial cost method. The assumed annual investment return rate is 8.50%. The actuarial assumptions are the same as those used by the prior actuary in the previous valuation.

Please see Appendix A of our Report for a complete description of these assumptions.

It is expected that the next experience investigation study will be performed prior to the completion of the next actuarial valuation as of July 1, 2009, using data through the five-year period ending June 30, 2008.

GASB 25 and Funding Progress

Governmental Accounting Standards Board Statement Number 25 (GASB 25) contains certain accounting requirements for HPOPS. In particular, it requires the inclusion of two special schedules in the HPOPS annual report:

1. Schedule of Funding Progress
2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Table 16 under Section III of our Report.

GASB 25 also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed. For this disclosure, HPOPS treats the employer contribution rate established under the Meet & Confer Agreement as the ARC, as long as this produces a funding period of 30 years or less.

Under GASB 25, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the unfunded actuarial accrued liability (UAAL). This amortization payment must be computed using a funding period no greater than 30 years. Further, the amortization payment included in the ARC may be computed as a level dollar amount, or it may be computed as an amount which increases with payroll (level-percentage-of-payroll). However, if payments are computed on a level-percentage-of-payroll approach, the payroll growth assumption may not anticipate future membership growth.

Since the recommended employer contribution rate is computed as a level-percentage-of-payroll using an amortization period of 30 years from the valuation date, the calculated rate meets the definition of an acceptable ARC.

SECTION III

SUPPORTING EXHIBITS

Summary of Cost Items (\$000)

	Valuation as of July 1, 2008		Valuation as of July 1, 2007	
	Cost Item	Cost as % of Pay	Cost Item	Cost as % of Pay
	(1)	(2)	(3)	(4)
1. Participants				
a. Active participants, hired post 10/9/2004	754		446	
b. Active participants enrolled in DROP	1,844		1,933	
c. Other active participants	2,467		2,500	
d. Retirees	2,130		2,070	
e. Disabled retirees	119		113	
f. Beneficiaries	541		516	
g. Inactive, deferred vested	19		18	
h. Total	7,874		7,596	
2. Projected valuation payroll	\$ 351,525		\$ 336,029	
3. Averages for active members				
a. Average age	42.0		42.1	
b. Average years of service	15.7		15.9	
c. Average pay (\$)	\$ 69,403		\$ 68,873	
4. Present value of future pay	\$ 2,721,131		N/A*	
5. Total normal cost rate	26.66%		25.07%	
6. Present value of future benefits	\$ 4,762,741	1354.9%	\$ 4,548,422	1353.6%
7. Present value of future normal costs	\$ 683,778	194.5%	\$ 690,742	205.6%
8. Actuarial accrued liability (6 - 7)	\$ 4,078,963	1160.4%	\$ 3,857,680	1148.0%
9. Present actuarial assets	\$ 3,337,612	949.5%	\$ 3,004,927	894.2%
10. Unfunded actuarial accrued liability (UAAL)	\$ 741,351	210.9%	\$ 852,753	253.8%
11. Funding period	30		30	
12. Employer contribution rate				
a. Normal cost	17.54%		16.00%	
b. Amortization charge	13.37%		16.10%	
c. Total	30.91%		32.10%	
13. Average estimated return				
a. Based on market value	0.24%		17.80%	
b. Based on actuarial value	12.47%		13.93%	
14. GASB 25 funded ratio	81.8%		77.9%	

* Items marked as N/A were not disclosed in a prior published actuarial report.

Calculation of Annual Required Contribution Rate (\$000)

	July 1, 2008 (1)	July 1, 2007 (2)
1. Annualized payroll supplied by HPOPS	\$ 339,638	\$ 323,293
2. Projected valuation payroll (adjusted for one-year's payroll increase)	\$ 351,525	\$ 336,029
3. Present value of future pay	\$ 2,721,131	N/A
4. Employer normal cost rate (Table 4)	17.54%	16.00%
5. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 3,036,620	\$ 2,972,522
b. Less: present value of future employer normal costs	(432,471)	(424,261)
c. Less: present value of future employee contributions	(251,307)	(266,481)
d. Actuarial accrued liability	<u>\$ 2,352,842</u>	<u>\$ 2,281,780</u>
6. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 1,722,721	\$ 1,573,346
b. Inactive participants	3,400	2,554
c. Active members (Item 5d)	2,352,842	2,281,780
d. Total	<u>\$ 4,078,963</u>	<u>\$ 3,857,680</u>
7. Actuarial value of assets (Table 11)	\$ 3,337,612	\$ 3,004,927
8. Unfunded actuarial accrued liability (UAAL) (Item 6d - Item 7)	\$ 741,351	\$ 852,753
9. Funding period	30 years	30 years
10. Assumed payroll growth rate	3.50%	3.50%
11. Employer Contribution requirement		
a. UAAL amortization payment as % of pay	13.37%	16.10%
b. Employer normal cost	17.54%	16.00%
c. Contribution requirement (a + b)	<u>30.91%</u>	<u>32.10%</u>

Actuarial Present Value of Future Benefits (\$000)

	<u>July 1, 2008</u> (1)	<u>July 1, 2007</u> (2)
1. Active members, hired post 10/9/2004		
a. Retirement benefits	\$ 73,627	N/A
b. Deferred termination benefits	0	N/A
c. Refunds	3,310	N/A
d. Death benefits	11,490	N/A
e. Disability benefits	10,178	N/A
f. Total	<u>\$ 98,604</u>	<u>\$ 54,678</u>
2. Active members enrolled in DROP		
a. Retirement benefits	\$ 1,756,101	N/A
b. Deferred termination benefits	0	N/A
c. Refunds	630	N/A
d. Death benefits	22,905	N/A
e. Disability benefits	48,050	N/A
f. Total	<u>\$ 1,827,686</u>	<u>\$ 1,892,217</u>
3. Other active members		
a. Retirement benefits	\$ 1,006,266	N/A
b. Deferred termination benefits	2,856	N/A
c. Refunds	3,470	N/A
d. Death benefits	46,043	N/A
e. Disability benefits	51,695	N/A
f. Total	<u>\$ 1,110,330</u>	<u>\$ 1,025,627</u>
4. Members in Pay Status		
a. Service retirements	\$ 1,440,608	N/A
b. Disability retirements	61,412	N/A
c. Beneficiaries	220,701	N/A
d. Total	<u>\$ 1,722,721</u>	<u>\$ 1,573,346</u>
5. Inactive members	<u>\$ 3,400</u>	<u>\$ 2,554</u>
6. Total actuarial present value of future benefits	<u>\$ 4,762,741</u>	<u>\$ 4,548,422</u>

Analysis of Normal Cost Rate

	<u>July 1, 2008</u>	<u>July 1, 2007</u>
	(1)	(2)
1. Gross normal cost rate		
a. Retirement benefits	22.73%	N/A
b. Deferred termination benefits	0.06%	N/A
c. Refunds	0.33%	N/A
d. Disability benefits	1.79%	N/A
e. Death benefits	1.74%	N/A
f. Total	<u>26.66%</u>	<u>25.07%</u>
2. Less: weighted average of member contribution rate	9.12%	9.07%
3. Employer normal cost rate (Item 1f - Item 2)	17.54%	16.00%

Calculation of Total Actuarial Gain or Loss

1. Unfunded actuarial accrued liability (UAAL) as of July 1, 2007	\$ 852,753
2. Total normal cost for year	84,242
3. Actuarially calculated contribution requirement	(138,343)
4. Interest on UAAL for one year	72,484
5. Interest on Item 2 and Item 3 for one-half year	(2,252)
6. Actuarially expected UAAL as of July 1, 2008 (1+2+3+4+5)	\$ 868,884
7. Actual UAAL as of July 1, 2008	741,351
8. Actuarial gain/(loss) for the period (6 - 7)	\$ 127,533
 <u>SOURCE OF GAINS/(LOSSES)</u>	
9. Asset gain/(loss) (See Table 13)	\$ 118,458
10. Impact of contributions less than actuarially required	(44,340)
11. Assumption changes (Includes Transition to New Actuary)	60,960
12. Changes to Benefit Provisions	0
13. Total liability gain/(loss) for the period	(7,545)
14. Actuarial gain/(loss) for the period	\$ 127,533

Note: Dollar amounts in \$000

Change in Calculated Contribution Rate Since the Prior Valuation

1. Calculated Contribution Rate as of July 1, 2007	32.08%
2. Change in Contribution Rate During Year	
a. Change in Employer Normal Cost*	(0.10%)
b. Assumption changes	0.00%
c. Recognition of prior asset losses (gains)	(2.46%)
d. Actuarial (gain) loss from current year asset performance	0.66%
e. Actuarial (gain) loss from liability sources	0.15%
f. Impact of Change in Actuary	0.13%
g. Impact of City contributing different than actuarially required	0.86%
h. Effect of Payroll growing faster than Payroll Growth Rate	(0.20%)
i. Effect of resetting amortization period to 30	(0.21%)
j. Total Change	<u>(1.17%)</u>
3. Calculated Rate as of July 1, 2008	30.91%

* Measured as the change in the 2007 Normal Cost determined by GRS to the 2008 Normal Cost determined by GRS. Changes in the Normal Cost from the prior actuary to GRS would be referenced in item 2f above.

Near Term Outlook

Valuation as of July 1,	Unfunded Actuarial Accrued Liability (UAAL, in 000s)	Funded Ratio	Calculated Contribution Rate	Funding Period (Years)	Market Value of Fund (in 000s)	For Fiscal Year Ending June 30,	Covered Compensation	Employer Contributions	Employee Contributions	Benefit Payments and Refunds	Net External Cash Flow
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
2008	\$ 741,351	81.8%	30.91%	30.0	\$ 3,328,298	2009	\$ 351,525	\$ 68,000	\$ 32,059	\$ 295,582	\$ (195,523)
2009	760,715	81.9%	30.21%	30.0	3,407,541	2010	355,037	73,000	32,566	292,149	(186,584)
2010	800,982	81.6%	30.15%	30.0	3,502,830	2011	359,548	78,000	33,158	308,513	(197,355)
2011	853,369	81.1%	30.25%	30.0	3,594,999	2012	365,547	83,000	33,888	326,495	(209,608)
2012	957,167	79.4%	31.17%	30.0	3,682,240	2013	372,159	88,000	34,682	340,013	(217,330)
2013	1,003,804	79.0%	31.08%	30.0	3,768,852	2014	379,757	98,000	35,582	351,891	(218,309)
2014	1,043,348	78.7%	30.82%	30.0	3,861,807	2015	388,954	108,000	36,644	357,980	(213,336)
2015	1,075,247	78.7%	30.45%	30.0	3,967,842	2016	398,866	118,000	37,775	366,739	(210,964)
2016	1,099,089	78.8%	29.93%	30.0	4,085,361	2017	409,700	123,000	38,992	375,101	(213,110)
2017	1,119,835	79.0%	29.32%	30.0	4,210,635	2018	422,896	128,000	40,434	386,781	(218,348)
2018	1,137,196	79.2%	28.67%	30.0	4,341,101	2019	436,480	133,000	41,928	368,974	(194,046)

Statement of Plan Net Assets (\$000)

	<u>July 1, 2008</u>	<u>July 1, 2007</u>
	(1)	(2)
A. ASSETS		
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand	\$ 123	\$ 184
2) Short term investments	85,625	82,338
b. Accounts Receivable		
1) Members	1,486	1,235
2) Investments	13,309	17,170
3) Due from Brokers	23,261	34,455
4) Other	133	132
c. Total Current Assets	<u>\$ 123,937</u>	<u>\$ 135,514</u>
2. Long Term Investments		
a. Fixed Income	\$ 933,536	\$ 885,284
b. Equity Securities	1,327,892	1,474,702
c. Alternative Investments	968,618	877,750
d. Foreign Currency Contracts	0	416
f. Total long term investments	<u>\$ 3,230,046</u>	<u>\$ 3,238,152</u>
3. Other Assets		
a. Collateral on securities lending	\$ 496,426	\$ 517,637
b. Furniture, fixtures and equipment, net	0	0
c. Note receivable - City of Houston	0	0
d. Accrued interest on note receivable	0	0
e. Total other assets	<u>\$ 496,426</u>	<u>\$ 517,637</u>
4. Total Assets	<u>\$ 3,850,409</u>	<u>\$ 3,891,303</u>
B. LIABILITIES		
1. Current Liabilities		
a. Foreign Currency Contracts	\$ 312	\$ -
b. Due to Brokers	23,425	11,643
c. Securities Lending Collateral	496,426	517,637
b. Accrued Professional and Investment Fees	1,506	1,952
c. Other Liabilities	442	405
2. Total Liabilities	<u>522,111</u>	<u>531,637</u>
3. Net Assets Held in Trust	<u>\$ 3,328,298</u>	<u>\$ 3,359,666</u>
C. ASSET ALLOCATION FOR CASH & LONG TERM INVESTMENTS		
1. Current Assets	3.7%	4.0%
2. Fixed Income	27.8%	26.2%
3. Equity Securities	39.6%	43.7%
4. Alternative Investments	28.9%	26.0%
5. Total	<u>100.0%</u>	<u>100.0%</u>

Reconciliation of Plan Net Assets (\$000)

	Year Ending	
	July 1, 2008	July 1, 2007
	(1)	(2)
1. Market value of assets at beginning of year	\$ 3,359,666	\$ 2,895,105
2. Revenue for the year		
a. Contributions		
i. Member contributions	\$ 31,003	\$ 29,489
ii.	<u>63,000</u>	<u>58,000</u>
iii. Total	\$ 94,003	\$ 87,489
b. Net investment income		
i. Dividends	\$ 19,540	\$ 27,581
ii. Short Term Investments	6,524	7,722
iii. Fixed Income	28,079	30,582
iv. Net appreciation (depreciation) on investments	(26,749)	459,957
v. Securities lending income	3,189	1,652
vi. Securities lending expense	(797)	(413)
vii. Less investment expenses	(18,186)	(13,116)
viii. Other	<u>142</u>	<u>147</u>
c. Total revenue	\$ 105,745	\$ 601,601
3. Expenditures for the year		
a. Refunds	\$ 500	\$ 739
b. Benefit payments	133,049	133,351
c. Administrative and miscellaneous expenses	<u>3,564</u>	<u>2,950</u>
d. Total expenditures	\$ 137,113	\$ 137,040
4. Increase in net assets (Item 2c - Item 3d)	\$ (31,368)	\$ 464,561
5. Market value of assets at end of year (Item 1 + Item 4)	\$ 3,328,298	\$ 3,359,666

Calculation of Excess Investment Income (\$000)

Item	Year Ending June 30,				
	2008	2007	2006	2005	2004
(1)	(2)	(3)	(4)	(4)	(4)
1. Market value of assets at beginning of year	\$ 3,359,666	\$ 2,895,105	\$ 2,651,208	\$ 2,422,768	\$ 2,018,299
2. Net external cash flow during the year	(39,546)	(46,601)	(49,212)	(89,524)	(30,511)
3. Market value of assets at end of year	3,328,298	3,359,666	2,895,105	2,651,208	2,422,768
4. Actual investment income during the year based on market value: (3) - (2) - (1)	\$ 8,178	\$ 511,162	\$ 293,109	\$ 317,964	\$ 434,980
5. Assumed earnings rate	8.50%	8.50%	8.50%	8.50%	8.50%
6. Expected earnings for the year on:					
a. Market value of assets at beginning of year	285,572	246,084	225,353	205,935	171,555
b. Net external cash flow	(1,646)	(1,940)	(2,049)	(3,727)	(1,270)
c. Total: (a) + (b)	283,926	244,144	223,304	202,208	170,285
7. Excess investment income for the year: (4) - (6)	\$ (275,748)	\$ 267,018	\$ 69,805	\$ 115,756	\$ 264,695

Development of Actuarial Value of Assets (\$000)

	July 1, 2008 (1)	July 1, 2007 (2)
1. Excess (Shortfall) of invested income for current and previous four years		
a. Current year	\$ (275,748)	\$ 267,018
b. Current year - 1	267,018	69,805
c. Current year - 2	69,805	115,756
d. Current year - 3	115,756	264,695
e. Current year - 4	264,695	(87,230)
f. Total for five years	<u>\$ 441,526</u>	<u>\$ 630,044</u>
2. Deferral of excess (shortfall) of invested income		
a. Current year (80%)	\$ (220,598)	\$ 213,614
b. Current year - 1 (60%)	160,211	41,883
c. Current year - 2 (40%)	27,922	46,302
d. Current year - 3 (20%)	23,151	52,939
e. Current year - 4 (0%)	0	0
f. Total deferred for year	<u>\$ (9,314)</u>	<u>\$ 354,739</u>
3. Market value of assets at end of year	\$ 3,328,298	\$ 3,359,666
4. Actuarial value of assets at end of year: (3) - (2f)	\$ 3,337,612	\$ 3,004,927

Estimation of Dollar-Weighted Investment Return (\$000)

Item (1)	Market Value (2)	Actuarial Value (3)
1. Assets as of July 1, 2007 (A)	\$ 3,359,666	\$ 3,004,927
2. Contributions during FY2008	94,003	94,003
3. Benefit payments made during FY2008	133,049	133,049
4. Refunds of contributions during FY2008	500	500
5. Investment return during FY2008	8,178	372,231
6. Assets as of July 1, 2008 (B): (1 + 2 - 3 - 4 + 5)	3,328,298	3,337,612
7. Approximate rate of return on average invested assets		
a. Net investment income	8,178	372,231
b. Net investment return FY 2008	0.24%	12.47%

Investment Experience Gain or Loss (\$000)

Item (1)	Valuation as of 6/30/2008 (2)	Valuation as of 6/30/2007 (3)
1. Actuarial assets, prior valuation	\$ 3,004,927	\$ 2,681,375
2. Total contributions since prior valuation	\$ 94,003	\$ 87,489
3. Benefits and refunds since prior valuation	\$ (133,549)	\$ (134,090)
4. Assumed net investment income at 8.5%		
a. Beginning assets	\$ 255,419	\$ 227,917
b. Contributions	3,914	3,642
c. Benefits and refunds paid	(5,560)	(5,583)
d. Total	<u>\$ 253,773</u>	<u>\$ 225,976</u>
5. Expected actuarial assets (Sum of Items 1 through 4)	\$ 3,219,154	\$ 2,860,750
6. Actual actuarial assets, this valuation	\$ 3,337,612	\$ 3,004,927
7. Asset gain (loss) since prior valuation (Item 6 - Item 5 - Item 7)	\$ 118,458	\$ 144,177

Note: Dollar amounts in \$000

History of Investment Returns

<u>For Fiscal Year Ending</u>	<u>Market Value ¹</u>	<u>Actuarial Value</u>	<u>For Fiscal Year Ending</u>	<u>Market Value ¹</u>	<u>Actuarial Value</u>
(1)	(2)	(3)	(4)	(5)	(6)
June 30, 1976 ²	8.60%	N/A	June 30, 1993 ²	14.74%	N/A
June 30, 1977 ²	2.90%	N/A	June 30, 1994 ²	2.61%	N/A
June 30, 1978 ²	2.20%	N/A	June 30, 1995 ²	12.12%	N/A
June 30, 1979 ²	7.90%	N/A	June 30, 1996 ²	17.44%	N/A
June 30, 1980 ²	7.80%	N/A	June 30, 1997 ²	17.15%	N/A
June 30, 1981 ²	11.50%	N/A	June 30, 1998 ²	14.26%	(0.46%)
June 30, 1982 ²	0.30%	N/A	June 30, 1999 ²	15.02%	15.37%
June 30, 1983 ²	44.20%	N/A	June 30, 2000 ²	14.80%	15.58%
June 30, 1984 ²	(7.70%)	N/A	June 30, 2001 ²	(3.96%)	11.02%
June 30, 1985 ²	24.80%	N/A	June 30, 2002	(8.80%)	5.25%
June 30, 1986 ²	26.70%	N/A	June 30, 2003 ²	4.15%	2.80%
June 30, 1987 ²	14.80%	N/A	June 30, 2004 ²	21.68%	6.09%
June 30, 1988 ²	(0.80%)	N/A	June 30, 2005	13.40%	3.63%
June 30, 1989 ²	12.80%	N/A	June 30, 2006	11.20%	8.93%
June 30, 1990 ²	13.80%	N/A	June 30, 2007	17.80%	13.93%
June 30, 1991 ²	1.89%	N/A	June 30, 2008	0.24%	12.47%
June 30, 1992 ²	11.19%	N/A			
			Average Return - last 5	12.62%	8.94%
			Average Return - last 10	8.12%	9.41%
			Average Return - since inception	10.03%	

¹ Dollar-weighted return.

² Gross return.

Historical Solvency Test (\$000)

Valuation Date	Aggregated Accrued Liabilities for				Actuarial Value of Assets	by Reported Assets		
	Active Members Contributions	Retirees Beneficiaries and Vested Terminations ¹	Members (City Financed Portion)			(5)/(2)	[(5)-(2)]/(3)	[(5)-(2)-(3)]/(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
July 1, 1993	\$ 114,279	\$ 401,989	\$ 468,227	\$ 947,456	100.0%	100.0%	92%	
July 1, 1994	123,471	416,053	460,899	1,038,256	100.0%	100.0%	100%	
July 1, 1995	91,687	764,518	343,543	1,168,056	100.0%	100.0%	91%	
July 1, 1996	95,615	812,498	350,104	1,329,570	100.0%	100.0%	100%	
July 1, 1998	99,298	1,017,723	432,320	1,518,081	100.0%	100.0%	93%	
July 1, 1999	107,008	1,157,882	508,939	1,746,312	100.0%	100.0%	95%	
July 1, 2000	111,099	1,324,079	531,225	2,013,491	100.0%	100.0%	100%	
July 1, 2001	138,248	707,152	1,461,027	2,226,307	100.0%	100.0%	95%	
July 1, 2002	145,255	718,779	1,729,696	2,337,157	100.0%	100.0%	85%	
July 1, 2003	153,634	838,090	1,883,014	2,394,411	100.0%	100.0%	74%	
July 1, 2004	153,088	995,841	2,190,295	2,466,070	100.0%	100.0%	60%	
July 1, 2005	249,804	1,259,243	1,883,927	2,508,794	100.0%	100.0%	53%	
July 1, 2006	262,514	1,421,330	1,949,301	2,681,375	100.0%	100.0%	51%	
July 1, 2007	275,990	1,575,900	2,005,790	3,004,927	100.0%	100.0%	57%	
July 1, 2008	294,678	1,726,121	2,058,165	3,337,612	100.0%	100.0%	64%	

Note: Dollar amounts in \$000

¹ Column (3) included AAL for DROP participants until 2000, now in Column (4)

Schedule of Funding Progress (\$000)

Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial		Annual Payroll	UAAL as % of Payroll (4)/(6)
			Accrued Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
July 1, 1993	\$ 947,456	\$ 984,495	\$ 37,039	96.2%	\$ 162,143	22.8%
July 1, 1994	1,038,256	1,000,423	(37,833)	103.8%	174,761	(21.6%)
July 1, 1995	1,168,056	1,199,748	31,692	97.4%	182,251	17.4%
July 1, 1996	1,329,570	1,258,217	(71,353)	105.7%	187,134	(38.1%)
July 1, 1998	1,518,081	1,549,341	31,260	98.0%	196,364	15.9%
July 1, 1999 *	1,746,312	1,773,829	27,517	98.4%	246,569	11.2%
July 1, 2000	2,013,491	1,966,404	(47,087)	102.4%	250,691	(18.8%)
July 1, 2001	2,226,307	2,306,427	80,120	96.5%	264,226	30.3%
July 1, 2002	2,337,157	2,593,730	256,573	90.1%	286,150	89.7%
July 1, 2003	2,394,411	2,874,738	480,327	83.3%	300,405	159.9%
July 1, 2004	2,466,070	3,339,224	873,154	73.9%	329,840	264.7%
July 1, 2005	2,508,794	3,392,974	884,180	73.9%	321,057	275.4%
July 1, 2006	2,681,375	3,633,145	951,770	73.8%	327,080	291.0%
July 1, 2007	3,004,927	3,857,680	852,753	77.9%	336,029	253.8%
July 1, 2008	3,337,612	4,078,963	741,351	81.8%	351,525	210.9%

* Definition of covered payroll changed from base pay to total direct pay less overtime

Historical City Contribution Rates

Valuation Date (1)	Calculated Contribution Rate (2)	Time Period for Contribution Rate (3)	Actual Contribution Rate (4)
July 1, 1990	14.20%	July 1, 1991 through June 30, 1993	14.30%
July 1, 1992	19.00	July 1, 1993 through June 30, 1994	19.00
July 1, 1993	18.00	July 1, 1994 through June 30, 1995	18.00
July 1, 1994	18.00	July 1, 1995 through June 30, 1996	18.00
July 1, 1995	17.40	July 1, 1996 through June 30, 1997	16.20
July 1, 1996	16.20	July 1, 1997 through June 30, 1998	16.20
July 1, 1997	16.80 ⁽¹⁾	July 1, 1998 through June 30, 1999	15.20
July 1, 1998	16.20	July 1, 1999 through June 30, 2000	12.40
July 1, 1999 ⁽²⁾	16.30	July 1, 2000 through June 30, 2001	12.20
July 1, 2000	11.30	July 1, 2001 through June 30, 2002	12.40
July 1, 2001	20.50	July 1, 2002 through June 30, 2003	12.10
July 1, 2002	24.40	July 1, 2003 through June 30, 2004	12.20
July 1, 2003	28.50	July 1, 2004 through June 30, 2005	11.30
July 1, 2004	31.20 ⁽¹⁾	July 1, 2005 through June 30, 2006	16.50
July 1, 2005	34.00	July 1, 2006 through June 30, 2007	17.70
	34.00	July 1, 2007 through June 30, 2008	18.70
July 1, 2007	32.10	July 1, 2008 through June 30, 2009	N/A
July 1, 2008	30.91	July 1, 2009 through June 30, 2010	N/A

⁽¹⁾ Average for the year

⁽²⁾ For the period July 1, 1999 through July 1, 2000 the City Contribution rates are shown as a percentage of total direct pay less overtime rather than base pay

Historical Active Participant Data

Valuation Date	Active Count	Average Age	Average Svc	Covered Payroll	Average Salary	Percent Changes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988	4,239	35.0	N/A	\$121,667	\$28,702	1.6%
1989	4,105	35.7	N/A	\$122,803	\$29,915	4.2%
1990	4,073	36.2	N/A	\$126,665 ⁽¹⁾	\$31,099	4.0%
1992	4,120	36.8	N/A	\$143,020	\$34,714	11.6%
1993	4,498	36.7	N/A	\$159,321	\$35,420	2.0%
1994	4,705	36.8	N/A	\$162,143	\$34,462	-2.7%
1995	4,921	36.9	N/A	\$174,761	\$35,513	3.0%
1996 ⁽²⁾	4,395	35.1	N/A	\$150,903	\$34,335	-3.3%
1997	4,282	35.5	N/A	\$149,631	\$34,944	1.8%
1998	4,247	35.9	N/A	\$153,479	\$36,138	3.4%
1999	4,253	36.3	N/A	\$187,967 ⁽³⁾	\$44,196 ⁽³⁾	22.3% ⁽³⁾
2000	4,137	36.7	N/A	\$179,415	\$43,368	-1.9%
2001 ⁽⁴⁾	5,325	40.2	N/A	\$264,226 ⁽⁵⁾	\$49,620 ⁽⁵⁾	14.4% ⁽⁵⁾
2002	5,352	40.7	N/A	\$286,150	\$53,466	7.8%
2003	5,387	41.3	N/A	\$300,405	\$55,765	4.3%
2004	5,225	41.7	N/A	\$329,840	\$63,127	13.2%
2005	4,867	42.0	N/A	\$321,057 ⁽⁶⁾	\$65,966 ⁽⁶⁾	4.5% ⁽⁶⁾
2006	4,785	42.3	N/A	\$327,080	\$68,355	3.6%
2007	4,879	42.1	N/A	\$336,029	\$68,873	0.8%
2008	5,065	42.0	15.7	\$351,525	\$69,403	0.8%

⁽¹⁾ Reflects the November 1, 1990 pay increase.

⁽²⁾ For the July 1, 1996 to July 1, 2000 valuations, includes those participants currently accruing benefits (i.e. excludes current

⁽³⁾ Definition of covered payroll changed from base pay to total direct pay less overtime.

⁽⁴⁾ Beginning July 1, 2001, includes active participants eligible for DROP.

⁽⁵⁾ Beginning July 1, 2001, the definition of total direct pay changed from the average of the last 26 pay periods to the highest bi-

⁽⁶⁾ Beginning October 9, 2004, pensionable pay is the total of the last 26 pay periods, excluding CMEPP and SOSP.

Retirees, Beneficiaries, and Disabled Participants Added to and Removed from Rolls

Valuation July 1, (1)	Added to Rolls		Removed from Rolls		Rolls-End of Year		% Increase in Annual Allowances (8)	Average Annual Allowances (9)
	Number (2)	Annual Allowances (3)	Number (4)	Annual Allowances (5)	Number (6)	Annual Allowances (7)		
1993	106	\$ 2,172	64	\$ 953	1,419	\$ 27,286	7.1%	\$ 19,229
1994	107	2,425	48	847	1,478	29,464	8.0%	19,935
1995	893	19,109	36	602	2,335	48,624	65.0%	20,824
1996 *	182	3,481	29	618	2,488	52,772	8.5%	21,211
1998	159	3,483	28	589	2,619	63,957	21.2%	24,420
1999	150	3,770	46	1,001	2,723	70,432	10.1%	25,866
2000	233	6,421	36	857	2,920	76,401	8.5%	26,165
2001 **	131	3,755	1,250	33,892	1,801	54,006	(29.3%)	29,987
2002	104	2,809	46	1,113	1,859	55,013	1.9%	29,593
2003	106	2,967	47	1,109	1,918	61,531	11.8%	32,081
2004	220	9,172	33	1,014	2,105	70,307	14.3%	33,400
2005	353	15,962	55	1,776	2,403	86,933	23.6%	36,177
2006	254	10,195	66	2,197	2,549	96,812	11.4%	37,980
2007	175	8,056	49	1,809	2,717	105,481	9.0%	38,823
2008	149	11,889	57	1,995	2,809	115,375	9.4%	41,073

* From June 30, 1996 through June 30, 2001 includes DROP participants.

** Beginning July 1, 2001 excludes active participants eligible for DROP.

Note: Dollar amounts in \$000

Membership Data (\$000)

	July 1, 2008	July 1, 2007
	(1)	(2)
1. Active members		
a. Number	5,065	4,879
b. Number in DROP	1,844	1,933
c. Total payroll	\$ 351,525	\$ 336,029
Payroll in DROP	\$ 148,951	N/A
d. Average salary	69,403	68,873
e. Average age	42.0	42.1
f. Average service	15.7	N/A
2. Inactive participants		
a. Vested	19	18
b. Total annual benefits (deferred)	\$ 463	\$ 418
c. Average annual benefit	24,344	23,222
3. Service retirees		
a. Number	2,130	2,070
b. Total annual benefits	\$ 89,808	\$ 84,062
c. Average annual benefit	42,163	40,610
d. Average age	66.9	N/A
4. Disabled retirees		
a. Number	119	113
b. Total annual benefits	\$ 4,224	\$ 3,919
c. Average annual benefit	35,496	34,681
d. Average age	50.8	N/A
5. Beneficiaries and spouses		
a. Number	541	516
b. Total annual benefits	\$ 20,880	\$ 17,082
c. Average annual benefit	38,595	33,105
d. Average age	66.9	N/A

Distribution of Active Members by Age and by Years of Service

Active Members Sworn Prior to October 9, 2004

Attained Age	<u>0-4</u> No. & Avg. Comp.	<u>5-9</u> No. & Avg. Comp.	<u>10-14</u> No. & Avg. Comp.	<u>15-19</u> No. & Avg. Comp.	<u>20-24</u> No. & Avg. Comp.	<u>25-29</u> No. & Avg. Comp.	<u>30-34</u> No. & Avg. Comp.	<u>35 & Over</u> No. & Avg. Comp.	Total No. & Avg. Comp.
Under 25									
25-29	24	44							68
	\$ 51,556	\$ 55,658							\$ 54,210
30-34	28	272	41						341
	\$ 52,480	\$ 59,520	\$ 69,757						\$ 60,172
35-39	13	220	505	87					825
	\$ 52,639	\$ 60,499	\$ 71,866	\$ 77,179					\$ 69,092
40-44	3	76	415	411	2				907
	\$ 50,309	\$ 59,775	\$ 71,429	\$ 77,101	\$ 70,687				\$ 72,951
45-49		10	115	123	5	1			254
		\$ 59,693	\$ 70,186	\$ 74,404	\$ 76,482	\$ 73,337			\$ 71,952
50-54		2	17	37	1	2			59
		\$ 56,552	\$ 70,184	\$ 75,448	\$ 72,010	\$ 78,051			\$ 73,321
55-59			4	7	1				12
			\$ 70,168	\$ 72,007	\$ 88,894				\$ 72,801
60-64				1					1
				\$ 69,646					\$ 69,646
65 & Over									
Total	68	624	1,097	666	9	3			2,467
	\$ 52,089	\$ 59,617	\$ 71,413	\$ 76,456	\$ 76,076	\$ 76,480			\$ 69,282

Average:

Age	39.4
Service	12.3
Salary	\$69,282

Distribution of Active Members by Age and by Years of Service

Active Members Sworn Post October 9, 2004

Attained Age	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35 & Over</u>	<u>Total</u>
	No. & Avg. Comp.	No. & Avg. Comp.							
Under 25	106								106
	\$ 35,750								\$ 34,541
25-29	329								329
	\$ 42,072								\$ 42,072
30-34	183								183
	\$ 43,240								\$ 43,240
35-39	98	1	2						101
	\$ 45,138	\$ 44,952	\$ 61,573						\$ 45,462
40-44	31								31
	\$ 43,338								\$ 43,338
45-49	4								4
	\$ 44,399								\$ 44,399
50-54									
55-59									
60-64									
65 & Over									
Total	751	1	2						754
	\$ 41,929	\$ 44,952	\$ 61,573						\$ 41,985

Average:

Age 29.5
 Service 1.3
 Salary \$41,985

Distribution of Active Members by Age and by Years of Service

DROP Members

Attained Age	<u>0-4</u> No. & Avg. Comp.	<u>5-9</u> No. & Avg. Comp.	<u>10-14</u> No. & Avg. Comp.	<u>15-19</u> No. & Avg. Comp.	<u>20-24</u> No. & Avg. Comp.	<u>25-29</u> No. & Avg. Comp.	<u>30-34</u> No. & Avg. Comp.	<u>35 & Over</u> No. & Avg. Comp.	<u>Total</u> No. & Avg. Comp.
Under 25									
25-29									
30-34									
35-39									
40-44				1	123	2			126
				\$ 79,571	\$ 78,664	\$ 73,725			\$ 78,592
45-49			2	4	477	249			732
			\$ 77,899	\$ 77,138	\$ 79,347	\$ 81,402			\$ 80,030
50-54			1		186	331	105	1	624
			\$ 93,526		\$ 79,037	\$ 82,459	\$ 84,737	\$ 75,281	\$ 81,828
55-59					63	104	98	26	291
					\$ 77,319	\$ 80,443	\$ 84,319	\$ 81,094	\$ 81,130
60-64					8	13	20	19	60
					\$ 75,216	\$ 87,196	\$ 85,517	\$ 77,097	\$ 81,841
65 & Over					3		2	6	11
					\$ 77,590		\$ 82,143	\$ 81,443	\$ 80,520
Total			3	5	860	699	225	52	1,844
			\$ 83,108	\$ 77,625	\$ 78,989	\$ 81,846	\$ 84,601	\$ 79,562	\$ 80,776

Average:

Age 50.5
 Service 26.1
 Salary \$80,776

Distribution of Active Members by Age and by Years of Service

Total Active and DROP Members

Attained Age	<u>0-4</u> No. & Avg. <u>Comp.</u>	<u>5-9</u> No. & Avg. <u>Comp.</u>	<u>10-14</u> No. & Avg. <u>Comp.</u>	<u>15-19</u> No. & Avg. <u>Comp.</u>	<u>20-24</u> No. & Avg. <u>Comp.</u>	<u>25-29</u> No. & Avg. <u>Comp.</u>	<u>30-34</u> No. & Avg. <u>Comp.</u>	<u>35 & Over</u> No. & Avg. <u>Comp.</u>	<u>Total</u> No. & Avg. <u>Comp.</u>
Under 25	106 \$ 35,750								106 \$ 34,541
25-29	353 \$ 42,717	44 \$ 55,658							397 \$ 44,151
30-34	211 \$ 44,467	272 \$ 59,520	41 \$ 69,757						524 \$ 54,259
35-39	111 \$ 46,017	221 \$ 60,429	507 \$ 71,825	87 \$ 77,179					926 \$ 66,515
40-44	34 \$ 43,953	76 \$ 59,775	415 \$ 71,429	412 \$ 77,107	125 \$ 78,536	2 \$ 73,725			1,064 \$ 72,756
45-49	4 \$ 44,399	10 \$ 59,693	117 \$ 70,318	127 \$ 74,490	482 \$ 79,317	250 \$ 81,370			990 \$ 77,814
50-54		2 \$ 56,552	18 \$ 71,481	37 \$ 75,448	187 \$ 78,999	333 \$ 82,433	105 \$ 84,737	1 \$ 75,281	683 \$ 81,094
55-59			4 \$ 70,168	7 \$ 72,007	64 \$ 77,499	104 \$ 80,443	98 \$ 84,319	26 \$ 81,094	303 \$ 80,800
60-64				1 \$ 69,646	8 \$ 75,216	13 \$ 87,196	20 \$ 85,517	19 \$ 77,097	61 \$ 81,641
65 & Over					3 \$ 77,590	2 \$ 82,143	6 \$ 81,443	11 \$ 80,520	11 \$ 80,520
Total	819 \$ 42,773	625 \$ 59,594	1,102 \$ 71,427	671 \$ 76,465	869 \$ 78,959	702 \$ 81,823	225 \$ 84,601	52 \$ 79,562	5,065 \$ 69,403

Average:
 Age 42.0
 Service 15.7
 Salary \$69,403

APPENDIX A

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the July 1, 2008 actuarial valuation report.

1. Valuation Date

The valuation date is as of July 1st, the first day of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

2. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal (EAN) actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial accrued liability (UAAL).

- a. The valuation is prepared on the projected benefit basis, under which the present value, at the investment return rate assumed to be earned in the future (currently 8.50%), of each participant's expected benefit payable at retirement or death is determined, based on his/her age, service, sex and compensation. The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable for the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the System on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the System are determined using a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.
- c. The normal cost contribution is determined using the "entry age normal" actuarial cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his/her behalf based on the benefits provisions applicable for the individual member.

- d. The unfunded actuarial accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date.

The contribution rate determined by this valuation will not be effective until one year later, but the determination of the rate does not reflect this deferral. It is assumed that there will be no change in the employer normal cost rate due to the deferral, and it is assumed that payments are made uniformly throughout the year.

3. Actuarial Value of Assets

The actuarial value of assets is based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

4. Economic Assumptions

- a. Investment return: 8.50% per year, compounded annually, composed of an assumed 3.50% inflation rate and a 5.00% net real rate of return. This rate represents the assumed return, net of all investment and administrative expenses.
- b. Salary increase rate: A service-related component, plus a 3.50% inflation component, as follows:

Years of Service	Service-related Component	Total Annual Rate of Increase Including 3.50% Inflation Component
(1)	(2)	(3)
1	0.00%	3.00%
2	0.00%	3.00%
3	0.00%	3.00%
4	0.00%	3.00%
5	0.00%	3.00%
6	0.00%	3.00%
7	0.00%	3.00%
8	0.00%	3.00%
9	0.00%	3.00%
10	0.00%	3.00%
11	0.00%	3.00%
12	0.00%	3.00%
13	0.00%	3.00%
14	0.00%	3.00%
15	0.00%	3.00%
16	0.00%	3.00%
17	0.00%	3.00%
18 and Over	0.00%	3.00%

- c. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.50% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

5. Demographic Assumptions

a. Retirement Rates

Participants as of October 9, 2004							
	Service						
Age	20-21	22-23	23-24	26-27	28-29	30-39	40 and Over
40-54	5.0%	5.0%	5.0%	10.0%	20.0%	20.0%	100.0%
55-59	5.0%	10.0%	10.0%	30.0%	30.0%	40.0%	100.0%
60-64	10.0%	10.0%	25.0%	50.0%	50.0%	50.0%	100.0%
Participants sworn in after October 9, 2004							
Age	20-21	22-23	23-24	26-27	28-29	30-39	40 and Over
55-59	5.0%	10.0%	10.0%	30.0%	30.0%	40.0%	100.0%
60-64	10.0%	10.0%	25.0%	50.0%	50.0%	50.0%	100.0%

100% of members age 65 and over are expected to retire

b. DROP Participation

100% of eligible active participants are assumed to elect the DROP.

c. DROP Entry Date

Active members (not already in DROP) are assumed to take advantage of the DROP and enter when first eligible. Participants are assumed to elect the maximum duration for the back DROP, up to 20 years.

d. DROP Interest Credit

A minimum of 3.00% interest will be credited to existing DROP accounts with a maximum of 7.00%. If the System's actuary certifies that past service costs are fully funded, the credit may be as high as 10.00%. For this actuarial valuation, the drop interest credit is assumed to be 7.00%

e. Mortality rates (for active and retired members)

- Healthy males – Based on the 1994 Group Annuity Mortality Table for males.
- Healthy females - Based on the 1994 Group Annuity Mortality Table for females.
- Disabled males and females – 1987 Commissioners Group Disabled Mortality Table.

Sample rates are shown below:

Age	Healthy Males	Healthy Females	Disabled Males	Disabled Females
(1)	(2)	(3)	(4)	(5)
25	0.07%	0.03%	2.82%	2.82%
30	0.08%	0.04%	2.82%	2.82%
35	0.09%	0.05%	2.82%	2.82%
40	0.11%	0.07%	2.82%	2.82%
45	0.16%	0.10%	2.82%	2.82%
50	0.26%	0.14%	2.82%	2.82%
55	0.44%	0.23%	2.82%	2.82%
60	0.80%	0.44%	3.14%	3.14%
65	1.45%	0.86%	3.98%	3.98%
70	2.37%	1.37%	5.71%	5.71%
75	3.72%	2.27%	8.19%	8.19%
80	6.20%	3.94%	11.84%	11.84%

f. Termination Rates and Disability Rates

Termination rates (for causes other than death, disability or retirement):

Termination rates are a function of the member's age. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown below.

Rates of disability are reduced to zero once a member becomes eligible for retirement.

Service Connected Deaths and Disabilities are assumed to be 10% of decrement.

Age Based Rates of Termination			Age Based Rates of Disability		
Age	Male	Female	Age	Male	Female
20	4.4395%	4.4395%	20	0.0800%	0.1000%
25	3.9958%	3.9958%	25	0.0800%	0.1000%
30	3.0221%	3.0221%	30	0.0800%	0.1240%
35	1.9177%	1.9177%	35	0.1040%	0.1640%
40	0.9211%	0.9211%	40	0.1440%	0.2160%
45	0.2166%	0.2166%	45	0.2080%	0.3000%
50	0.0012%	0.0012%	50	0.3660%	0.5400%
55	0.0012%	0.0012%	55	0.7900%	1.0800%
60	0.0012%	0.0012%	60	2.1520%	2.8600%

6. Other Assumptions

- a. Percent married: 90% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
- b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.
- d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
- e. There will be no recoveries once disabled.
- f. No surviving spouse will remarry.
- g. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.
- h. Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
- i. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
- j. Decrement timing: Decrements of all types are assumed to occur mid-year.
- k. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
- l. Decrement relativity: Decrement rates are converted to probabilities in order to account for multiple decrements.
- m. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in our Report, and the actual payroll payable at the time contributions are made.

- n. Benefit Service: All members are assumed to accrue one year of service each year. Exact fractional service is used to determine the amount of benefit payable.

7. Participant Data

Participant data was supplied in electronic files. There were separate files for (i) active members, (ii) inactive members, and (iii) members and beneficiaries receiving benefits.

The data for active members included birth date, sex, most recent hire date, salary paid during last fiscal year, hours worked by the employee, and employee contribution amounts. For retired members and beneficiaries, the data included date of birth, sex, amount of monthly benefit, and date of retirement. Also included was the member's Group and for members participating in DROP, their account balances and monthly DROP income.

All healthy and disabled retirees are assumed to have 100% joint and survivor annuities, prorated by the 90% marriage assumption and reflecting the three year spousal age differential described above. All beneficiaries are assumed to have life annuity only benefits.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year.

In fiscal years when a 27th pay period occurs the individual pays for employees who were employed throughout the year will be adjusted by multiplying their reported pay by the ratio of 26/27. In years that have only 26 pay periods no adjustment would be needed.

Assumptions were made to correct for missing, bad, or inconsistent data. These had no material impact on the results presented.

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Summary of Plan Provisions

Covered Members

All police officers sworn before September 1, 1975 are covered under Plan 1, except those who elected by December 31, 1981 to participate in Plan 3.

All police officers sworn on or after September 1, 1975, but before September 1, 1981 are covered under Plan 2, except those who elected by December 31, 1981 to participate in Plan 3 and those from Police Cadet Classes 70 and 71 who elected to transfer to Plan 1.

All other police officers are covered by Plan 3, except those from Police Cadet Classes 70 and 71 who elected to pay additional contributions and transfer to Plan 1.

Final Compensation

Prior to November 28, 1998

Monthly base salary paid to the participant in his/her last month of service. For any participant from a position held for less than 3 years, final compensation is the average monthly base salary for the 3 years prior to retirement.

After November 28, 1998 but prior to July 1, 2001

Monthly total direct pay less overtime paid to the participant in his/her last month of service. For any participant from a position held for less than 3 years, final compensation is the average monthly base pay for the 3 years prior to retirement plus the other current components of total direct pay.

After July 1, 2001 but prior to October 9, 2004

Highest biweekly pay period (excluding overtime) during the last 26 pay periods annualized. Amounts not paid on a biweekly basis are deducted from period paid. Annual amounts are divided by 26 and added to the highest pay period, including motorcycle allowances.

After October 9, 2004

Average of the last three years of compensation (excluding exempt time, overtime and strategic officer staffing pay). This average will be phased in beginning with the pay period ending after October 9, 2004 until the new definition is fully phased in after 78 pay periods.

Service Retirement

Eligibility

- ▶ Sworn prior to October 9, 2004 20 years of service.
- ▶ Sworn on or after October 9, 2004 Age 55 with 10 years of service

Benefit

- ▶ Prior to November 1, 1955 \$75 per month plus \$2 per month for each year of service in excess of 25 years.
- ▶ After November 1, 1955 but prior to January 13, 1968 30% of final compensation plus 1 % of final compensation for each year of service in excess of 20 years.
- ▶ After January 13, 1968 but prior to July 1, 1986 Plans 1 and 2: 30% of final compensation plus 2% of final compensation for each year of service in excess of 20 years.
Plan 3: 2% of final compensation for each year of service up to 40 years, reduced 0.42% for each month benefit commencement precedes age 55.
- ▶ After July 1, 1986 but prior to July 1, 1988 2% of final compensation for each year of service up to 40 years.
- ▶ After July 1, 1988 but prior to September 1, 1997 45% of final compensation plus 2% of final compensation for each year of service in excess of 20 years; maximum 80% of final compensation. Benefit based on prior formula is payable until July 1, 1991 and recomputed benefit is payable thereafter.
- ▶ After September 1, 1997 but prior to July 1, 2001 50% of final compensation plus 2% of final compensation for each year of service in excess of 20 years; maximum 80% of final compensation.
- ▶ After July 1, 2001 but prior to October 9, 2004 55% of final compensation plus 2% of final compensation for service in excess of 20 years.
The Pension System recomputed the benefit of each person who retired before July 1, 2001. The retiree's benefit was increased by the result of multiplying the difference between 55% and the percentage used at the time of retirement in computing the retiree's benefit for the first 20 years of service by the base salary of the retiree at the time of retirement. Retroactive cost-of-living increases were not applied to the increased benefit. This recomputed benefit is effective for all payments on or after July 1, 2001.

- After October 9, 2004
- Participants sworn prior to October 9, 2004 will receive the highest of the following alternatives using Final Average Compensation effective after October 9, 2004, from October 9, 2004 through October 7, 2007:
- 1) 2.25% of Final Average Compensation for each of the first 20 years of service plus 2% of Final Average Compensation for each year of service in excess of 20 years, with a maximum of 80% of Final Average Compensation.
 - 2) Benefit participant would have received had participant retired or entered the DROP immediately before October 9, 2004
 - 3) Benefit calculated using a sliding average of the pay received for the pay periods elapsed since October 9, 2004.

New participants after October 9, 2004:

2.25% of Final Average Compensation for each of the first 20 years of service plus 2% of Final Average Compensation for each year of service in excess of 20 years, with a maximum of 80% of Final Average Compensation.

Additional Benefits

An extra monthly benefit of \$150.00 is payable for life. Effective November 28, 1998, a \$5,000 lump sum is payable upon retirement for members sworn prior to October 9, 2004.

**Terminated Vested
Pension Benefit**

Eligibility

More than 10 but less than 20 years of service. Termination on or after November 28, 1998.

Benefit

2.75% of final compensation times years of service. This benefit commences at age 60 or at termination of service if later.

**Deferred Retirement
Option Plan (D R O P)**

Eligibility

20 years of service and sworn in prior to October 9, 2004.

Benefit

- After September 1, 1995 but prior to September 1, 1997
- Eligible participants may elect to participate in the DROP until they leave active service. The member's retirement pension will be calculated based on service and earnings at the time the DROP is elected.

A notional account will be maintained for each DROP participant. This account will be credited with the following amounts while the member is participant of the DROP:

- The member's monthly retirement pension, including applicable cost-of-living adjustments,
- The member's contribution to the Pension System, and
- Investment earnings/losses at the rate of the Pension System's earnings/losses averaged over a five-year period. Effective July 1, 2001, this rate is subject to a minimum of 0%.

A benefit equal to the DROP account balance is paid at the time the member leaves active service. The payment is made as a single lump sum.

If a DROP participant suffers an on-duty disability resulting in the inability to perform his/her usual and customary duties as a police officer or dies in the line of duty, he (or his survivors) are allowed to revoke the DROP election and to receive the more generous on-duty disability or death benefits.

- ▶ After September 1, 1997 but prior to December 1, 1998

The Pension System recomputed the benefit of each person who entered the DROP before September 1, 1997. The benefit was increased in the same manner as the retiree's benefit.

- ▶ After December 1, 1998 but prior to July 1, 2001

The Pension System recomputed the benefit of each person who entered the DROP before December 1, 1998. The benefit was recalculated based on Total Direct Pay less overtime upon entry to the DROP. This recomputed benefit is effective for all payments on or after December 1, 1998.

- ▶ After July 1, 2001 but prior to October 9, 2004

The Pension System recomputed the benefit of each person who entered the DROP before July 1, 2001. The member's benefit was increased by the result of multiplying the difference between 55% and the percentage used at the time of DROP entry in computing the member's benefit for the first 20 years of service by the base salary of the member at the time of DROP entry. Retroactive cost-of-living increases were applied to the increased benefit. The account balance for each participant was recomputed as if this new benefit had been effective since DROP entry.

- ▶ After October 9, 2004

A minimum of 3.00% interest will be credited to existing DROP accounts with a maximum of 7.00%. If the actuary certifies that past service costs are fully funded, the credit may be as high as 10.00%.

Benefit Recalculation	Effective July 1, 2001, monthly benefit at retirement will be recalculated to be the greater of (i) current monthly benefit, or (ii) monthly benefit based on service at DROP entry and Final Compensation at retirement date.
Back DROP Option	Effective on July 1, 2001, a back DROP option is available for all eligible participants. The DROP account is recalculated under the option based on what the account balance would have been had the participant elected the DROP earlier than he/she actually did. The initial DROP entry date cannot be backdated prior to September 1, 1995 or prior to 20 years of credited service, and must be on the first of the month selected.

**Postretirement
Option Plan (P R O P)**

Eligibility	Retired from DROP and sworn in prior to October 9, 2004.
Benefit	
▶ After November 28, 1998 but prior to July 1, 2001	A retired member is allowed to leave all or a portion of their DROP account in the System. These accounts are credited every calendar year with the 30-year Treasury bond rate as of June of the preceding year.
▶ After July 1, 2001	The interest rate earned on PROP accounts will be the same as the interest rate credited to DROP accounts, including a minimum credited rate of 0%.

**Partial Lump Sum
Optional Payment (P L O P)**

Eligibility	Participant on or after October 9, 2004.
Benefit	
▶ After October 9, 2004	Up to 20% of the actuarial value of the accrued pension at retirement.

Disability Retirement

Eligibility	Effective July 1, 2001, participant partially or totally disabled is eligible for Disability Retirement as defined below: <ul style="list-style-type: none">– Total: Disability is defined as “unable to perform his/her usual and customary duties as a police officer”.– Partial: Disability is an impairment which renders the participant unable to work as a police officer and which is expected to last 12 months.
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Benefit

▶ Duty-connected

Total: The service retirement benefit accrued to date of disability (or 20 years, if greater).

Partial: 35% of final compensation is payable for life or as long as he remains incapacitated.

▶ Not duty-connected

Total or partial: The disability benefit is 2.75% of final compensation times years of service up to 20, minimum 27.5% of final compensation.

Additional Benefits

For participants before October 9, 2004, an education allowance equal to 100% of final compensation less disability benefit is payable for up to four years for off-duty or duty-related disability. Proportionate members injured while on-duty as a municipal worker will receive immediate off-duty benefit upon Board approval.

Survivor Benefits

Eligibility

Surviving spouses and dependent children and parents of participants, including surviving spouses of retired or disabled participants who were not married at the time of retirement or disability, provided the spouse was married to the participant for at least 5 years at the time of death.

Benefit

▶ Prior to September 1, 1997

If duty-connected: monthly lifetime benefit equal to 100% of final compensation at date of death.

If not duty-connected: monthly lifetime benefit equal to 100% of the service retirement benefit the participant had accrued at the time of death.

Spouse's benefit upon death after retirement: monthly lifetime benefit equal to actual benefit payable at time of death.

Dependent children's benefit if no surviving spouse: the benefit that would have been payable to the spouse is divided equally among the dependent children.

If there is a surviving spouse, the dependent children of Plan 1 and Plan 2 participants receive \$25 per month. Dependent children include unmarried children who are under age 18, and for Plan 3, full-time students under age 22, or permanently disabled children.

Dependent parent's income if no surviving spouse or children, but there is a dependent parent: the benefit that would have been payable to the spouse will be paid to the dependent parent.

- ▶ After September 1, 1997 but prior to July 1, 2001

The Pension System recomputed the benefit of each survivor whose original benefit was computed prior to September 1, 1997. The benefit was increased in the same manner as the retiree's benefit.

- ▶ After July 1, 2001

The Pension System recomputed the benefit of each survivor whose original benefit was computed prior to July 1, 2001. The benefit was increased in the same manner as the retiree's benefit.

Additional Benefits

Effective December 1, 1998, a \$5,000 lump sum is paid upon the death of an active member who was sworn in prior to October 9, 2004.

Effective July 1, 2001, an extra monthly benefit of \$150.00 is payable for life. Children receiving equivalent of the spouse's benefit do not receive this additional benefit.

Benefit Adjustments

Cost-of-Living

- ▶ Prior to October 9, 2004

Monthly benefits for participants receiving payments are increased each April 1 by 2/3 of the increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the preceding calendar year. Effective September 1, 1997 this increase is subject to a minimum of 3.0% per year compounded and a maximum increase of 8.0% per year compounded.

- ▶ After October 9, 2004

Monthly benefits for participants receiving payments are increased each April 1 by 80% of the increase in the Consumer Price Index for All Urban Consumers (CPI-U) for the preceding year, with a minimum of 2.4% and a maximum of 8%.

13th Benefit Check

Effective November 28, 1998, a 13th benefit check is paid to current retirees and DROP members when:

- The assets on the fund equal or exceed the liabilities after the 13th benefit check is paid.
- The return on investments for the preceding fiscal year exceeds 9.25%.
- The payment of the benefit will not cause the City of Houston's contribution to the System to increase.
- Effective October 9, 2004, the funded ratio of the plan must be at least 120% for the 13th check to be paid out.

Service Adjustments

Effective November 28, 1998, participants with previous service with the City in non-classified positions may use that service to satisfy the service requirement of 20 years for retirement purposes only.

Effective July 1, 2001, participants who have service credit in more than one City of Houston Pension Plan may use their combined service to qualify for DROP participation.

Effective July 1, 2001, participants involuntarily transferred to the System from the Houston Municipal Employees System will receive service under this plan for years worked while serving as a City Marshall, Airport Police or Park Police.

Contributions

Employee Contributions

- ▶ Prior to December 1, 1998 Each participant contributes 8.75% of base salary.
 - ▶ After December 1, 1998 but before October 9, 2004 Each participant contributes 8.75% of average total direct pay less overtime.
 - ▶ After October 9, 2004
- Members sworn in prior to October 9, 2004 Each participant contributes 9.00% of pay. The additional 0.25% will be credited to the Plan's general fund.
- Others Each participant contributes 10.25% of pay, which will be credited to the Plan's general fund.

Refunds

Refunds of contributions are made if

- (i) The participant dies before 10 years of service and the death is not duty-connected,
- (ii) The participant dies with no eligible survivor,
- (iii) A Plan 1 or 2 participant leaves service before eligibility for retirement after completing 5 years of service, or
- (iv) A Plan 3 participant leaves service with less than 20 years of service.

Contributions are refunded without interest.

Employer Contribution	The City of Houston will follow the following contribution schedule:	
Fiscal Year Ending (June 30 th)		City Contribution Amount
	2001	\$ 30,645,000
	2002	32,645,000
	2003	34,645,000
	2004	36,645,000
	2005	36,645,000
	2006	16% of total compensation, with a minimum of \$53,000,000
2007-2012		\$5,000,000 above the prior year's payment

Beginning in Fiscal Year 2013 and continuing until the System's funded ratio is 100%, payments will increase each year by \$5,000,000 or, if the scheduled payment is less than the actuarial rate, \$10,000,000. In addition, once the System's funded ratio is 100%, the City will pay the actuarially required rate, but not less than 16% of covered pay.

Additionally, beginning in Fiscal Year 2013 and once the funded ratio reaches 75%, if the funded ratio drops below 75%, the City will pay additional amounts in the following fiscal year to return the System to 75% funded. Once the fund ratio reaches 80%, the City will contribute additional amounts to return the System to 80% funded.

Changes in Plan Provisions from Since the Prior Valuation

There were no changes to the plan provisions from the prior actuarial valuation.